Prepartum Depression

A Study of Seventy Unwed Mothers Treated with d-Amphetamine Sulfate and Amobarbital

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• **Seventy unwed pregnant patients in states of mild to moderate depression evidenced by one or more symptoms (tenseness, "nervousness," crying spells, listlessness, fatigue, nausea and vomiting, insomnia and overeating), received informal psychotherapy and a sustained-release capsule combining d-amphetamine sulfate and amobarbital.**

Forty-eight patients had complete or substantial relief of symptoms, 15 had partial relief, seven had slight or no relief.

Use of the preparation seemed to make tense, "nervous" patients more communicative and amenable to counseling, but was less effective in listless, easily fatigued patients.

Because of its direct mood-alleviating action and its ability to facilitate psychotherapy, the d-amphetamine sulfate-amobarbital combination proved a very effective treatment for mild and moderate depression accompanying pregnancy.

MILD TO MODERATE DEPRESSION is a commonly observed condition in pregnancy. It may be accompanied by anxiety and be evidenced in crying spells, nervousness and irritability, overeating, insomnia, nausea and vomiting. It has been noted that similar symptoms often accompany mild to moderate depression not associated with pregnancy.[9,10]

Several investigators[4,5,7,8] have reported effective use of a preparation combining d-amphetamine sulfate and amobarbital as supportive treatment for depressed, anxious patients. However, the literature does not, to our knowledge, contain any reports of studies done to test the possible value of the preparation as a treatment for symptoms of depression and anxiety during pregnancy. Therefore, the following study was conducted on 70 mild to moderately depressed unwed pregnant women. Because many of the women in this study had pronounced neurotic tendencies, and because all were subject to considerable environmental stress, it was felt that they would provide a more than usually difficult test for the preparation.

Method

The study was conducted over a six-month period on 70 patients at St. Anne's Maternity Hospital in Los Angeles. St. Anne's, a specialized teaching and rehabilitation institution for unwed mothers, is a charity hospital operated by the Franciscan Sisters of the Sacred Heart.

Before receiving the medication, each patient was given a complete examination. Any patient with symptoms of serious mental disorder was eliminated from the study.

In the 70 patients, depression and anxiety were accompanied by feelings of guilt, rejection, abandonment and censure. Before and during the study the patients received occasional, informal psychotherapy consisting, for the most part, of interviews with the nuns, social workers and other members of the staff. These interviews enabled the patients to discuss their problems and to make plans for the future.

From St. Anne's Maternity Hospital, Los Angeles.

All the patients received the same routine prenatal care by the resident and teaching attending staff.

Thirty-seven of the 70 patients were less than 21 years old; the youngest (four patients) were 15. The ages of the remaining 33 patients ranged from 21 (five patients) to 35 (four patients). Sixty-one were undergoing their first pregnancy, eight their second and one her fourth. Two months was the earliest stage of gestation at which administration of the preparation was begun. In one patient it was started at the beginning of the eighth month. The average time was the fourth month.

Depending upon the predominant symptoms, each patient was classified into one of two general groups. Those in Group I (55 patients) had psychic symptoms chiefly—tenseness, "nervousness," moodiness, crying spells, apprehension, irritability, listlessness and fatigue. Group II (15 patients) was composed of patients who, in addition to one or more of the Group I symptoms, had either nausea and vomiting (nine patients) or insomnia (five patients) or both nausea and vomiting and insomnia (one patient). Twenty-nine patients (27 in Group I, 2 in Group II) also were unable to control their appetites.

The drug combination was administered by means of a sustained release capsule* containing hundreds

*Dexamyl Spansule capsules, Smith, Kline & French Laboratories.

of coated pellets designed to release small doses continuously over eight to ten hours. The capsule is supplied in two strengths. The lower strength (d-amphetamine sulfate 10 mg., amobarbital .06 gm.) was given to 57 patients; the higher strength (d-amphetamine sulfate 15 mg., amobarbital .09 gm.) was given to 13, all of whom had listlessness and easy fatigability. Each patient received one capsule a day, before breakfast.

The patients were examined at the end of the first, third, sixth and eighth week of treatment. Their response was graded on the following criteria: *Excellent* (complete disappearance of symptom), *Good* (substantial relief), *Fair* (partial relief), and *Poor* (slight or no relief). In addition, observations were made on any changes occurring in the patients' sociability, cooperation with the staff and response to counseling.

Results

For all 70 patients with either psychic or physical symptoms of mild to moderate depression, the results were excellent in 24, good in 24, fair in 15 and poor in seven. For the 55 patients whose symptoms were primarily psychic, the results were excellent in 18, good in 21, fair in 11 and poor in five. Two of the five patients who had insomnia had an excellent result, three a fair result. Of the ten who had nausea and vomiting, six had an excellent result, two a fair result, and two a poor result.

Overeating, a symptom observed in 29 patients, was completely or substantially controlled in 23, only partially controlled in five and in one was not changed. (None of the patients who ate normally before taking the drug preparation had a loss of appetite.)

Five of the 13 patients who received the higher dosage complained of insomnia and three of increased nervousness after taking the preparation. These side effects disappeared when the lower dosage was substituted.

Seventy per cent of the patients who had excellent to good results showed improvement by the end of the first week, the earliest relief occurring within three days. In one patient no improvement was noted until the end of the eighth week.

There were no significant differences between the responses obtained in the younger and the older patients.

The treatment appeared to be particularly beneficial in the tense, "nervous" patients whose feelings were "bottled up." These patients became more relaxed, communicative and cooperative with the counselors. They seemed better able to "ventilate" their feelings and were more amenable to suggestions and advice. The medication seemed less effective in patients whose depressions were characterized chiefly by listlessness and an inability to "get started."

The following brief case reports illustrate typical results:

CASE 1. (Excellent result.) The patient was 20 years of age and in the fifth month of her first pregnancy. She was a factory worker, had been reared in another state, had not gone beyond third grade in school and had come to Los Angeles at the age of 15. Her mentality was decidedly subnormal. Her family circle was intact but was disturbed by frequent and violent quarrels and occasional brief desertions by her father. An older sister's whereabouts were unknown. The putative father was 21 years old, unmarried, unwilling to assume responsibility, but was amenable to contributing small sums of money from time to time. The patient was depressed, complained of frequent nausea and vomiting and recurrent periods of extreme nervousness. She spoke of "disappearing" as her sister had done, and viewed her pregnancy as "punishment."

During the first week of treatment, the nausea was completely relieved and nervousness subsided. At the end of the fourth week of treatment the patient was only mildly depressed, had no nausea or vomiting and only infrequent periods of nervousness. Treatment was discontinued at the end of six weeks. Thereafter, the patient was observed at two-week intervals and there was no recurrence of symptoms.

CASE 2. (Good result.) The patient, 28 years of age and in the fourth month of a second pregnancy, was a factory worker who had been divorced the previous year. Her first child, a five-year-old girl, had been living with the patient's parents since the divorce. The patient maintained that her former husband was the father of the unborn child, although he denied this and refused pecuniary assistance. The patient appeared to have had a satisfactory home life before marriage and a somewhat better than average education. She was articulate and communicative and was determined that after the birth of the second child she would make a home for both children. The patient's chief complaints, on admission to the hospital, were moods of despondency and frequent crying spells.

At the end of the second week of treatment she reported that the crying spells were less frequent and that her mood had lifted to some extent. No crying spells were reported after the third week. Episodes of despondency persisted, alternating with periods of definite improvement of mood and outlook. Toward the latter part of pregnancy, the patient's outlook had improved to the extent that she was able to devise a realistic and sensible approach to her immediate problems.

CASE 3. (Fair result.) The patient was 15 years of age and in the sixth month of her first pregnancy. At the time of admission she was in the eighth grade in school, had a very poor school record and because

of bad behavior had come to the attention of the juvenile authorities. She came from a home that had been disrupted ten years earlier by the death of her father. Two older brothers and her mother worked at menial jobs. With the onset of pregnancy the putative father, an older man who had been attentive to the patient for over a year, disclaimed any interest in her. Her mother alternated between moods of condemnation and sympathy. The patient complained of "lonesomeness," was lethargic in speech and movement, and was overeating.

At the end of the first week of treatment she had made a start toward control of appetite. Her mood seemed significantly improved. In subsequent weeks, however, her improvement seemed limited to bringing her appetite under satisfactory control. There was no improvement in mood beyond that noted after the first week.

CASE 4. (Poor result.) The patient, 21 years of age and in the fourth month of her first pregnancy, was reticent about her background; but it appeared that she had left her home in another city some six months earlier after a protracted quarrel with her mother. She had been living alone since then, working as a waitress. She seemed to have a better-than-average education. Nevertheless, she was not very communicative or sociable and was decidedly listless. Her chief complaints were fatigue and nausea. There was no vomiting.

There was no improvement after a week of treatment. The patient was then given the higher dosage for two weeks, again without improvement. She complained of insomnia and the lower dosage was resumed. Thereupon insomnia disappeared. There was some lessening of fatigue, but this may have been due to some nutritional improvement. At the end of the eighth week, use of the drug preparation was discontinued, the patient having shown no improvement.

DISCUSSION

The encouraging results obtained in this study indicate that the d-amphetamine-amobarbital combination is of definite value in the treatment of symptoms of mild to moderate depression in pregnancy. Bearing in mind, however, that these patients received informal, superficial psychotherapy as well as the medication, the results must be evaluated as the product of two concomitant therapies. Perhaps the most reasonable assumption is that the drug preparation prepared or "conditioned" the patient for greater receptivity to informal psychotherapy; although undoubtedly improvement also occurred as a result of the direct effect on mood. Psychotherapy is not usually a "fast acting" treatment, yet 44 patients showed some improvement by the end of the first week of drug therapy.

Of course, superficial psychotherapy, while possibly tiding patients such as these over a very trying period, cannot be expected to solve their underlying emotional problems. Nor, of course, can the medication substitute for proper psychiatric treatment. As Cattel[2] and others[3,6] have pointed out, many unmarried pregnant women have deeply rooted problems which require intensive psychotherapy. It is quite possible that psychotherapy, particularly in the beginning stages, will be more productive if the d-amphetamine-amobarbital combination is given concomitantly.

The particularly desirable results achieved in depressed, tense, "nervous" women suggests that, for some patients, this preparation may be more appropriate than the widely used tranquilizers which create an attitude of indifferent calm. The d-amphetamine-amobarbital combination seems to enhance initiative at the same time that it lessens tension, thereby producing a mental attitude which enables the patient to face up to and act upon her problems.

The number of lethargic, listless patients in the study was small; even smaller was the number of patients with nausea and vomiting. However, judging from previous experience,[1] it would seem that for these patients d-amphetamine sulfate alone is more effective than the combination. For "jittery," nervous or excitable patients the d-amphetamine-amobarbital combination would seem to be the more effective.

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